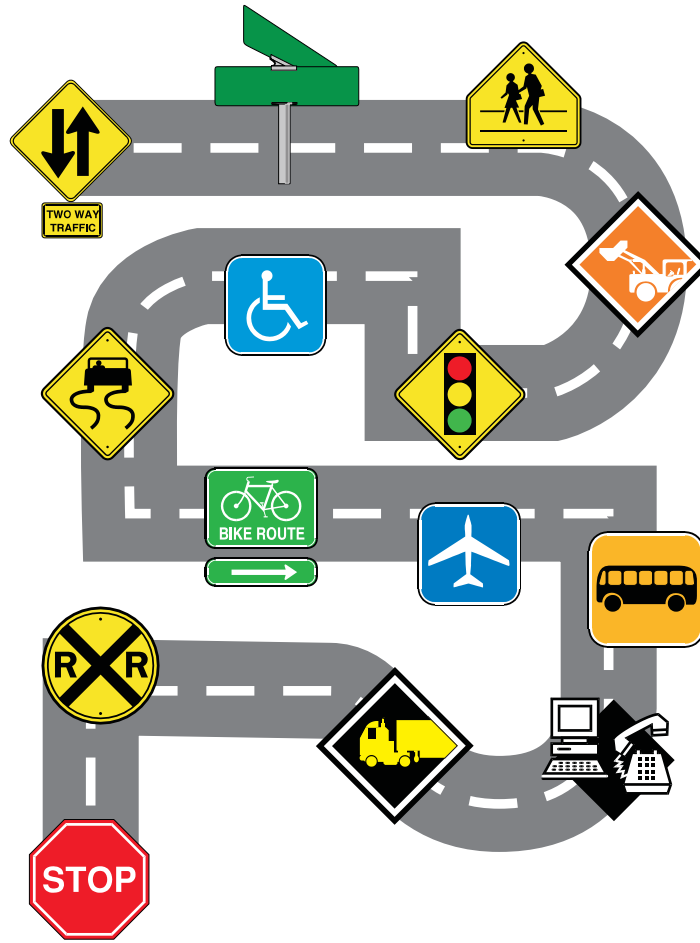


Maricopa Association of Governments

Conformity Analysis

Executive Summary



MAG Long Range Transportation Plan Summary and 1999 Update

FY 2000-2004

MAG Transportation Improvement Program

EXECUTIVE SUMMARY

This report presents the 1999 Conformity Analysis for the Draft MAG Fiscal Year 2000 to 2004 Transportation Improvement Program (TIP) and the Long Range Transportation Plan Summary and 1999 Update (LRTP). The Maricopa Association of Governments (MAG) is the designated Metropolitan Planning Organization (MPO) in Maricopa County, Arizona, and is responsible for regional transportation and air quality planning. The analysis demonstrates that the criteria specified in the federal conformity rule for a conformity determination are satisfied by the TIP and LRTP. A finding of conformity for the TIP and LRTP is therefore supported.

Summarized below are the applicable federal criteria or requirements for conformity determinations, the conformity tests applied, the results of the conformity assessment of the TIP and LRTP, and an overview of the organization of this report. Figures presenting the conformity test results are provided at the end of the executive summary.

CONFORMITY REQUIREMENTS

The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for transportation plans, programs and projects and their respective amendments. The federal conformity rule was first promulgated in 1993 by the U.S. Environmental Protection Agency (EPA), following the passage of Amendments to the federal Clean Air Act in 1990, and has been amended three times since then. On March 2, 1999, the U.S. Court of Appeals in the District of Columbia issued an opinion in the transportation conformity lawsuit, *Environmental Defense Fund v. Environmental Protection Agency*, which changed some aspects of the conformity rule including the specification of applicable conformity tests. The rule will have to be amended again to conform to the court ruling. The rule and the recent court ruling are discussed in detail in the main report.

The rule applies nationwide to “all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is designated nonattainment or has a maintenance plan” (40 CFR 93.102). Currently, portions of Maricopa County are designated as nonattainment areas with respect to the national ambient air quality standards for three criteria pollutants, carbon monoxide, ozone, and particulate matter (PM-10). Therefore, transportation plans and programs for the Maricopa County nonattainment area must satisfy the requirements of the federal conformity rule.

Under the federal conformity rule, the principal criteria for a determination of conformity for transportation plans and programs are:

- (1) the TIP and LRTP must pass conformity tests for emissions, including a demonstration of consistency with emission budgets established in any applicable air quality implementation plan;

- (2) the latest planning assumptions and emission models specified for use in air quality implementation plans must be employed;
- (3) the TIP and LRTP must provide for the timely implementation of transportation control measures (TCMs) specified in the applicable air quality implementation plans; and
- (4) consultation.

Consultation generally occurs at the beginning of the conformity analysis process, on the proposed methodologies for the upcoming analysis and the projects to be assessed, and at the end of the process, on the draft report. The final determination of conformity for the TIP and LRTP is the responsibility of the Federal Highway Administration and the Federal Transit Administration.

CONFORMITY TESTS

Conformity tests specified in the federal conformity rule are: (1) emission budget tests [40 CFR 93.118], and (2) emission reduction tests [40 CFR 93.119]. For budget tests, predicted emissions for the TIP and LRTP must be less than or equal to the motor vehicle emissions budget specified in the applicable air quality implementation plan or implementation plan submission. If there is no applicable air quality plan for a pollutant for which the region is in nonattainment, the emission reduction test applies. The emission reduction test has two components, a “build/no-build” component and a “less than 1990 emissions” component. For the “build/no-build” component, emissions predicted to occur following the implementation of the TIP and LRTP (the “build” scenario) must be less than the emissions predicted to occur if the TIP and LRTP were not implemented (the “no-build” scenario). For the “less than 1990 emissions” component, emissions for the “build” scenario must be less than emission levels in the year 1990.

Chapter 1 summarizes the applicable air quality implementation plans and conformity tests for carbon monoxide (CO), ozone (O₃) and particulate matter under ten microns in diameter (PM-10). For the 1999 Conformity Analysis, because of the unique circumstance created by the recent court ruling affecting the federal conformity rule, both the emission budget and emission reduction tests were applied for CO. An emission budget test was applied for volatile organic compounds (VOC), which is a precursor to ozone. As allowed by the conformity rules, only one component of the emission reduction test, the “build/no-build” test, was applied for PM-10.

RESULTS OF THE CONFORMITY ANALYSIS

A regional emission analysis was conducted for the years 2000, 2010, and 2019 for each pollutant. All analyses were conducted using the latest planning assumptions and emission models. The major conclusions of the 1999 Conformity Analysis are:

- ° For CO, the total regional vehicle-related emissions associated with implementation of the TIP and LRTP for all years tested are projected to be less than the corresponding no-build scenarios, less than 1990 emission levels, and less than the emission budget specified in the applicable, submitted air quality implementation plan. The conformity tests for CO are therefore satisfied. The results of the regional emission analysis for CO are presented in Figure ES-1.
- ° For VOC, the total regional vehicle-related emissions associated with implementation of the TIP and LRTP for all years tested are projected to be less than the emission budget specified in the applicable, EPA-promulgated air quality implementation plan. The conformity tests for VOC (i.e. ozone) is therefore satisfied. The results of the regional emission analysis for VOC are presented in Figure ES-2.
- ° For PM-10, for each year tested, total regional vehicle-related emissions associated with implementation of the TIP and LRTP are projected to be less than the amount that would be emitted if the TIP and LRTP were not implemented. The applicable, build/no-build conformity test for PM-10 is therefore satisfied. The results of the regional emission analysis for PM-10 are presented in Figure ES-3.
- ° Implementation of the TIP and LRTP will support and not impede the implementation of the TCMs that have been adopted as part of applicable air quality implementation plans. The current status of TCM implementation is documented in Chapter 4 of this report. Figure ES-4 presents the total funding programmed in the TIP for transportation projects that implement or provide for the timely implementation of transportation control measures.
- ° Consultation has been conducted in accordance with federal requirements.

REPORT ORGANIZATION

The report contains five chapters which provide: (1) a review of the applicable conformity rules, air quality implementation plans and conformity tests, (2) an overview of the emission modeling methodology applied for the conformity analysis, (3) documentation required under the federal conformity rule of socioeconomic projections and transportation modeling, (4) documentation required under the federal conformity rule for transportation control measures, and (5) the results of the conformity analysis for the TIP and LRTP.

Excerpts from the applicable air quality implementation plans, consultation documentation and other related information are contained in two volumes of appendices. The appendices include copies of memos (methodology, and list of regionally significant projects) previously circulated for consultation and responses to comments received to date. The appendices of the final version of this report will also include a transcript of the public hearing to be conducted on the draft report. Any comments received and responses made as part of the final 30-day consultation period on this draft report will also be included in the appendices.

Figure ES-1: Conformity Test Results for Carbon Monoxide

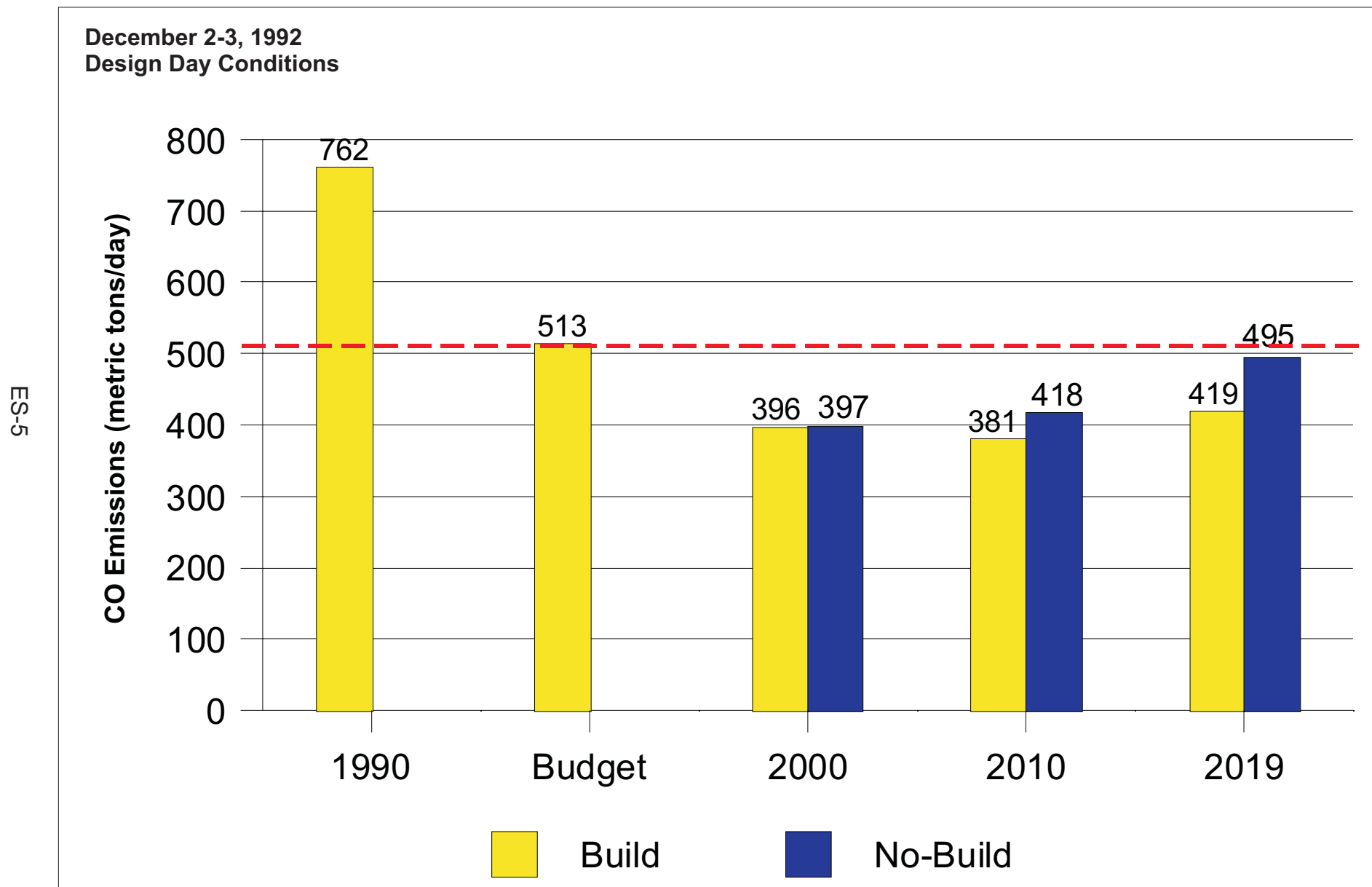


Figure ES-2: Conformity Budget Test Results for Volatile Organic Compounds

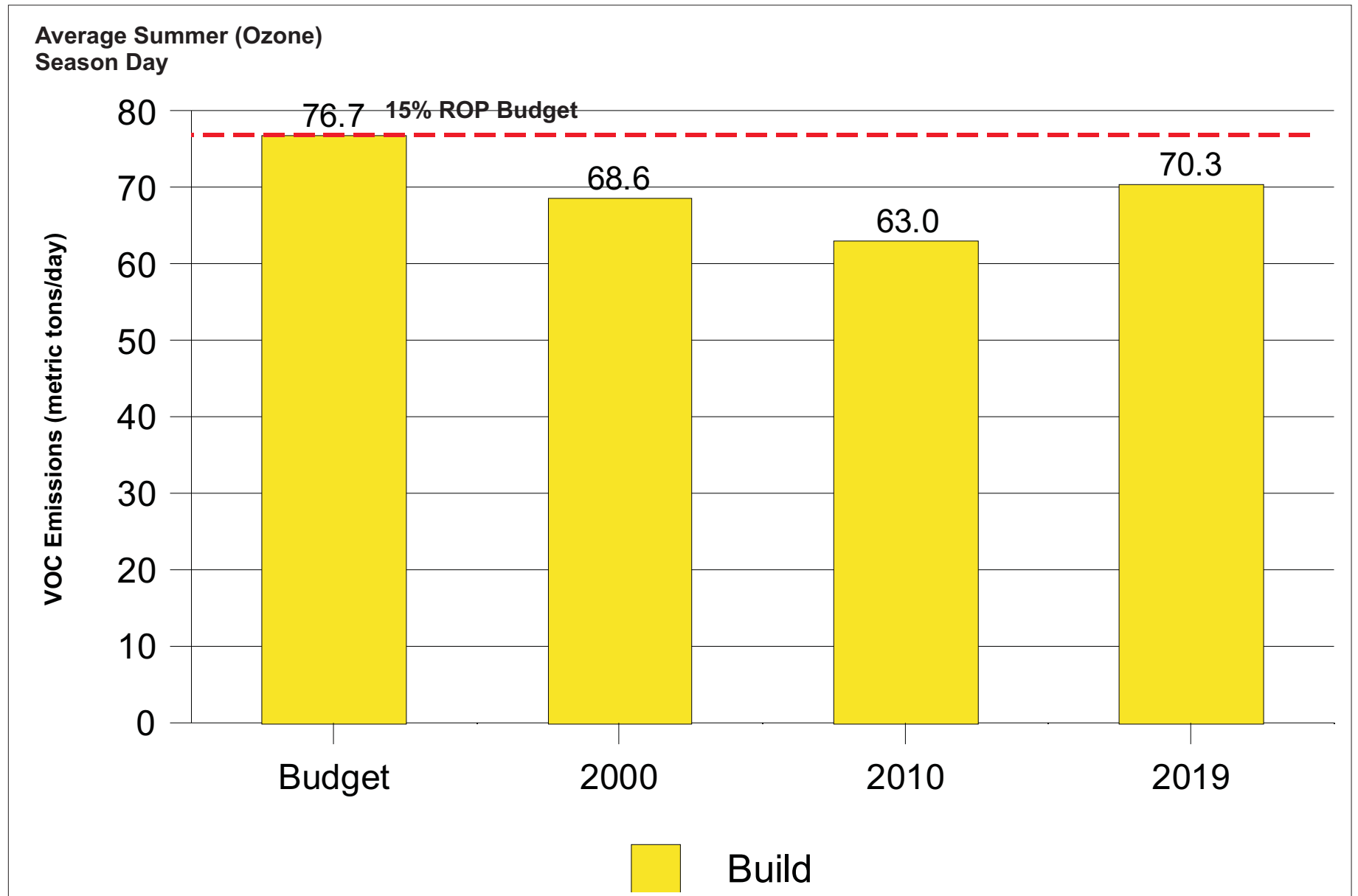


Figure ES-3: Conformity Emission Reduction (Build-No Build) Test Results for PM-10

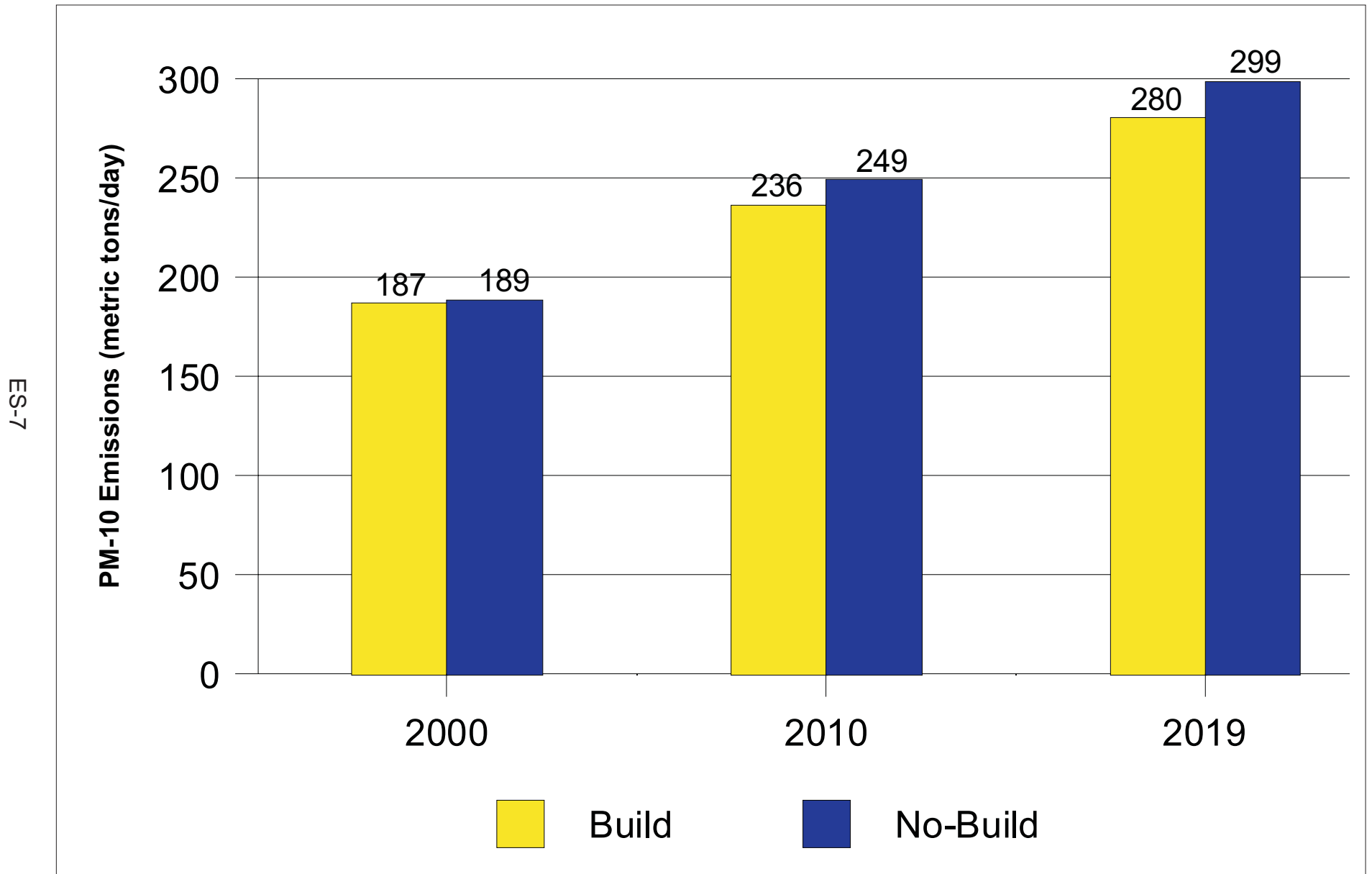
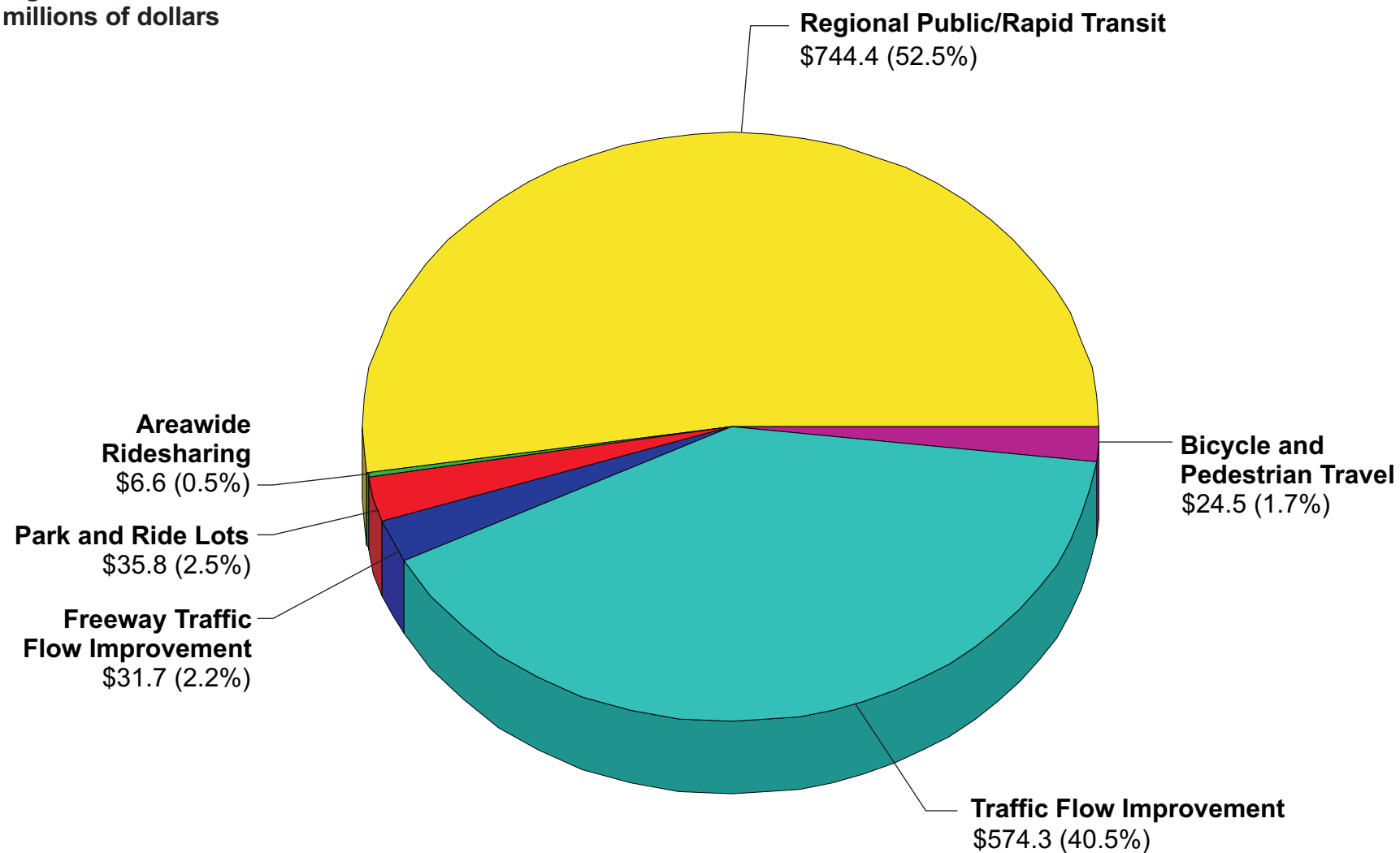


Figure ES-4: Transportation Control Measure Funding in the Draft MAG FY 2000-2004 Transportation Improvement Program

ES-8

Figures are in
millions of dollars



Total = \$1417 million.

An additional \$606.6 million is programmed for paving of streets, driveways and parking lots.

Percentages may not add to 100% due to rounding.